DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-010503
Date Inspected: 01-Dec-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Li Yang

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No		
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A	
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A	
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A	
				Approved WPS:	☑ Yes	☐ No	☐ N/A	
				Delayed / Cancelled:	☐ Yes	☐ No	☑ N/A	

Bridge No: 34-0006
Component: OBG Trail Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 5AW

This Quality Assurance (QA) Inspector witnessed final tension verification for Cat Walk between PP 29, PP 30 and 31 and for Segment 5AW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M16 x 40 RC Set# DHGM160009 and final torque required is 200 N-m.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required is 200 N-m.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required is 200 N-m and

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required is 200 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 118.

Segment 5BW

This Quality Assurance (QA) Inspector witnessed final tension verification for Cat Walk between PP 32, PP 33 and 34 and for Segment 5BW and at the Side Panel Cross Beam side (between PP 32 and 33). Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M16 x 40 RC Set# DHGM160009 and final torque required is 200 N-m.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required is 200 N-m.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required is 200 N-m and

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required is 200 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 118.

Segment 5CW

This Quality Assurance (QA) Inspector witnessed final tension verification for Cat Walk between PP 35 and 36 and for Segment 5W. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M16 x 40 RC Set# DHGM160009 and final torque required is 200 N-m.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required is 200 N-m.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required is 200 N-m and

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required is 200 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 118.

Segment 1AW to 1BW

This Quality Assurance (QA) Inspector witnessed final tension verification for full Length Longitudinal Diaphragm to full Length Longitudinal Diaphragm between Panel Point (PP) 10 and PP 10.25 and for Segment 1AW to 1BW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required is 453 N-m.

Bolt sizes used were M24 x 75 RC Set# DHGM240020 and final torque required is 600 N-m and

Bolt sizes used were M24 x 100 RC Set# DHGM240022 and final torque required is 527 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 625.

Segment 1AW to 1BW

This Quality Assurance (QA) Inspector witnessed final tension verification for Triangular Plate connecting the full Length Longitudinal Diaphragm to Floor Beam between Panel Point (PP) 10 and PP 10.25 and for Segment 1AW to 1BW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 90 RC Set# DHGM220048 and final torque required is 500 N-m and

Bolt sizes used were M24 x 90 RC Set# DHGM240028 and final torque required is 540 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 584.

Segment 1AW to 1BW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Bottom Panel for Segment 1AW to 1BW between PP 10 and 10.5. The repair welding is being carried out against ABF UT Report No. UT-1W-017R2 Dated 11.30.2009 at Three (3) locations i.e., Y= 515mm, 5330mm and 5750mm. The weld joint was identified as OBW1A-008 (after Repair R3). The welder was identified as 066258. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i. e., WPS-345-SMAW-1G (1F)-FCM-Repair-1.

Segment 6AE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Side Panel to Bottom Panel connecting area E3 location for Segment 6AE at PP 37 Cross Beam Side. The weld joint was identified as Seg 030A-007. The welder was identified as 037743. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2114-Tc-U4b-FCM.

Lift 2 West

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel to Edge Panel at W5 Location for Lift 2 West. The repair welding is being carried out against ABF UT Report No. UT-2W-005R2 Dated 11.29.2009 at Five (5) locations i.e., Y= 4160mm, 5765mm, 5775mm, 4100mm and 5990mm. The weld joint was identified as CA 102-002 and 004. The welder was identified as 066258. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G (1F)-FCM-Repair-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents

WELDING INSPECTION REPORT

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer